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TANK TYPE	MOUNT	LOCATION
Diaphragm	Pedestal	Apex

This is a 13-inch pressure vessel constructed of 6Al-4V titanium. The tank shell consists of a elliptical pressurant head and a hemispherical head. Positive fuel expulsion is provided by a reversible ethylene-propylene terpolymer (AF-E-332) rubber diaphragm retained (welded in) at the sphere mid-plane. Mounting is accomplished on a pedestal mount located on the apex of the propellant hemisphere.

PSI Part Number 80342-1

ISO 9001 & AS 9100 REGISTERED

SIZE: 12.88 inch ID
SIZE: 327- MM

APPLICABLE DOCUMENTS

Acceptance Test Procedure	50-000353
Qualification Test Procedure	50-000354
Burst Test Report	56-000135
Qualification Test Report	56-000140
Re-Qual Test Report	56-000146
Traceability	60-000042
Configuration Management Plan	60-000224
Quality Assurance Program Plan	60-000229
Materials & Processes List	60-000318
Quality Assurance Program Up-Date	60-000321
Powder Blast	65-000030
Flow Plan	80S342500
Fusion Welding, TIG	90-000003
Radiographic Acceptance STD	90-000004
Radiographic Inspection	90-000006
Pre-Weld Cleaning	90-000022
Identification	90-000047
Electrochemical Etch	90-000049
Heat Treat	90-000082
Closed Die Forging	90-000083
Penetrant Inspection, Note 8	90-000086
Pre-Penetrant Etch, Note 8	90-000088
Radiographic, Note 8	90-000103
Ultrasonic Insp, Class AA	MIL-STD-2154
Weld, Electron Beam	AMS 2681
Cleaning	CPP 3668

TANK CHARACTERISTICS

Operating Pressure, psig	480	Total Volume, ci	920
Proof Pressure, psig	720	Prop Volume, ci	882
Cryo Proof, psig	NA	Max Design Wt, lbs	6.0
Burst Pressure, psig	960	Minimum Wall, inch	0.021

TANK CHARACTERISTICS (Metrics)

Operating Pressure, Bar	33.09	Total Volume, l	15.08
Proof Pressure, Bar	49.64	Prop Volume, l	14.45
Cryo Proof, Bar	NA	Max Design Wt, Kg	2.72
Burst Pressure, Bar	66.19	Minimum Wall, MM	0.533

FORGINGS

FORGINGS P/N	SUPPLIER	Die
80-342061-1, Press	ARCTURUS	3535
80-216061-1, Prop	ARCTURUS	2971
RING FORGING	**RING SIZE, (Rough Machined)**	
80-216003-11, Retainer	13.13 +.09 OD x 11.81 -.09 ID x 1.38 +.09 Lg	

PROGRAM INFORMATION

Program	DMSP & TIROS
Customer	Note 7
Customer P/N	2629324-1
Original Job No	8719
Customer Installed Device	No
Customer Controlled Design	No

Analysis	Stress	Fracture
Fracture Analysis Plan		54-000211

ACCEPTANCE ENVIRONMENTAL TESTS

Random Vibration

DIAPHRAGM INFORMATION

Diaphragm P/N		80-216007-1
Diaphragm Mold Tool No		T-1262
Diaphragm Gross Wt		1.0
Diaphragm Material Type		AF-E-332
Diaphragm, Material	Note 2	90-000075
Diaphragm Processing	Note 2	90-000087
N-Ray Inspection		1002

TUBE TYPE AND SIZE

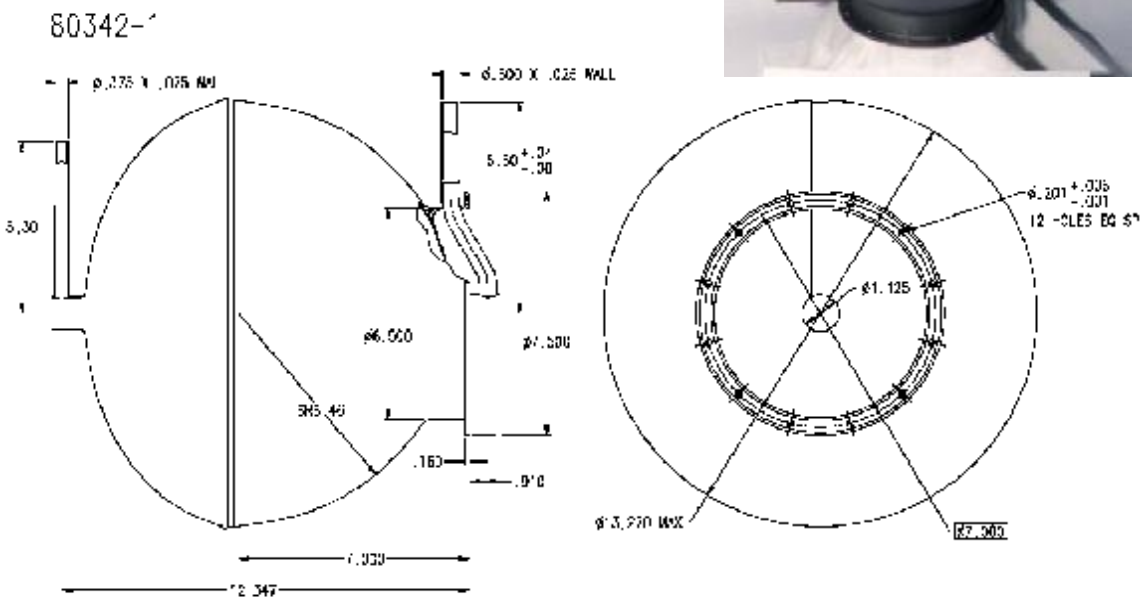
TRANSITION	SIZE
80-342001-1, Inlet	.375 OD x .025 Wall
80-342002-1, Outlet	.500 OD x .025 Wall

TUBE TYPE AND SIZE (Metrics)

TRANSITION	SIZE
80-342001-1, Inlet	9.25 OD x .635 Wall
80-342002-1, Outlet	12.7 OD x .635 Wall

Notes:

1: Majority of this tooling is owned by PSI
2: Proprietary Document
3: This tank is similar to 80216-1
4: Tube protectors are SK 1127 & SK 1128
5: DMSP is Defense Meteorological
6: TIROS is Television Infrared Observatory Satellite
7: General Electric Astro Space
8: Fracture Critical



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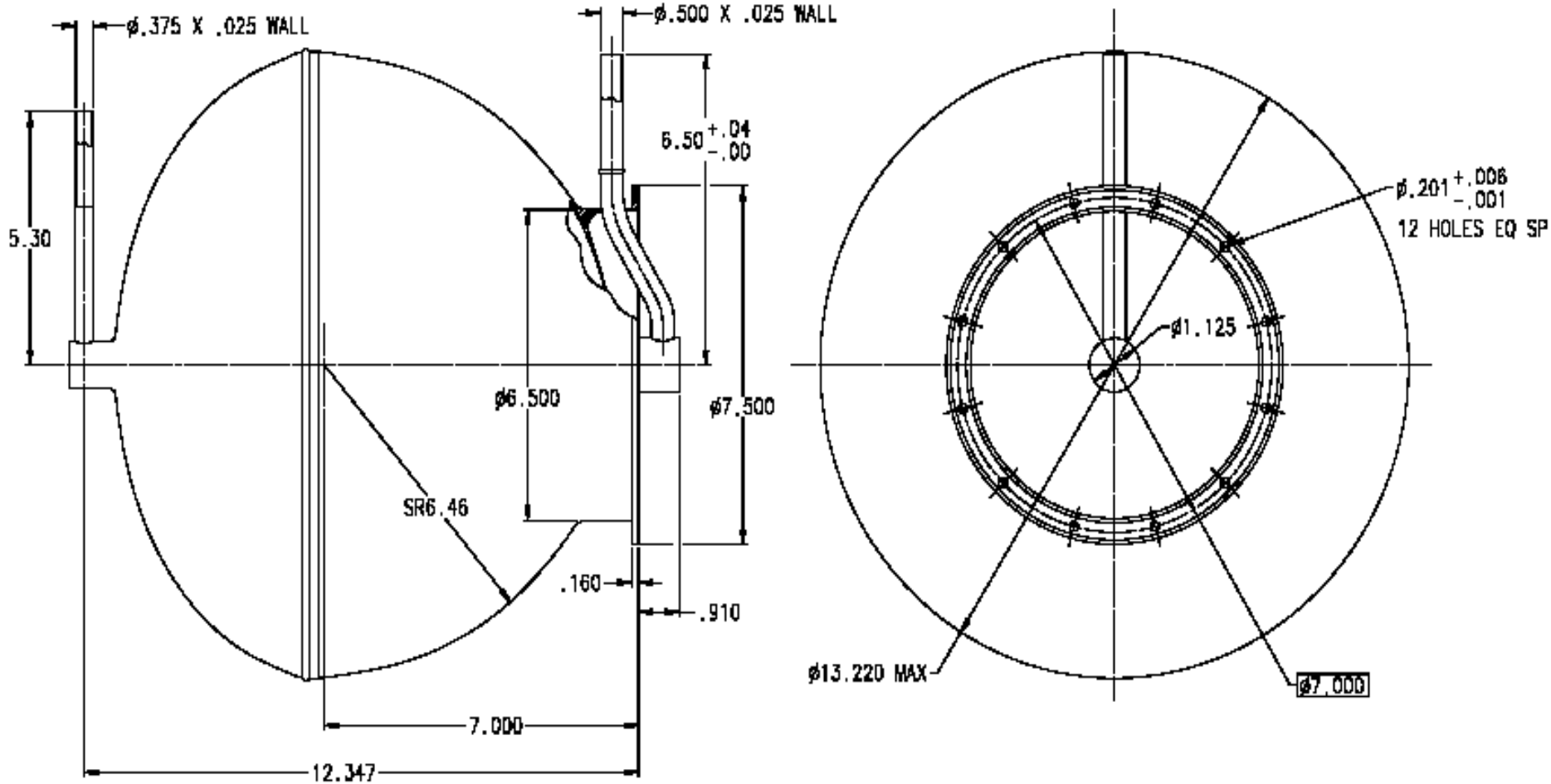
14-May-99

80342-1


ø.375 X .025 WALL
ø.500 X .025 WALL
6.50 +.04 -.00
5.30
ø6.500
ø7.500
SR6.46
.160
.910
7.000
12.347
ø.201 +.006 -.001
12 HOLES EQ SP
ø1.125
ø13.220 MAX
ø7.000